

Appl. No.: 10/686,389
Amdt. Dated: October 15, 2008
Reply of Office action of June 16, 2008

Docket No. KIM-10113

REMARKS

Claims 2 to 9 are currently pending in the application. Applicant has canceled amended claims 2 to 9. Applicant requests reconsideration of the application in light of the following remarks.

Objections

Claims 2, 9 are objected to for informalities. Applicant has taken the Examiner's suggestion and amended claims 2, 4 and 6-9 to read "automatic gain control (AGC)," thereby obviating the above objection

Rejections under 35 U.S.C. §103

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a *prima facie* case of obviousness. MPEP §2143.

Claims

Claims 4 and 6-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over DeJaco (U.S. Patent No. 5,742,734, hereinafter “DeJaco”), in view of Malvar (U.S. Patent No. 6,029,126, hereinafter “Malvar”). Applicant respectfully traverses this rejection and requests reconsideration of the claims.

First, Applicant has again taken the Examiner’s suggestion and amended claims 2, 4 and 6-9 to delete “preprocessing audio data to be processed by a codec having a variable coding rate” from the preamble and positively recite those elements in the body of the respective claims.

The Examiner asserts that DeJaco discloses deciding an interval of audio data that is to be encoded in a low bit rate in said codec. However, DeJaco does not teach or fairly suggest deciding an interval of audio data to be encoded into a low bit rate for adjusting **amplitude** (see claims 4 and 6-9) of the audio data of the decided interval. The presently claimed invention decides an interval of audio data that is to be encoded in a low bit rate for adjusting **amplitude** of the decided interval. Thereafter, the codec determines an encoding rate based on the **amplitude** adjusted audio data, so that the audio data may be encoded at a higher encoding rate.

As indicated in DeJaco, rate decision elements assign suggested encoding rates by comparing values computed by subband energy computation elements with the threshold values, and encoding rate selection elements select the higher of the suggested encoding rates (DeJaco, col. 3, line 56-col. 4 line 15). DeJaco assigns the suggested encoding rates to determine the encoding rate of the Vocoder, not to adjust the amplitude of the audio data as in the present invention. In claims 4 and 6-8, currently amended, the encoding rate of the codec is determined based on the characteristic of the amplitude adjusted audio data, while

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DeJaco selects the encoding rate of the Vocoder from the input signal without making any changes to the input signal.

Malvar fails to overcome the deficiencies of the primary reference, DeJaco. The Examiner asserts that Malvar discloses adjusting the amplitude of the audio data. Malvar, however, does not disclose adjusting the amplitude of audio data of the decided interval, which is to be encoded in a low bit rate in the codec, before the audio data is processed by the codec, as claimed. Malvar merely describes automatic gain control as an example of enhancement operators incurring a processing delay that will be added to the codec delay, without describing its detailed function (Malvar col. 2, lines 41-56).

Claims 2, 3 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over DeJaco (U.S. Patent No. 5,742,734, hereinafter “DeJaco”), in view of Malvar (U.S. Patent No. 6,029,126, hereinafter “Malvar”) further in view of Davis (U.S. Patent No. 4,539,526, hereinafter “Davis”). Applicant respectfully traverses this rejection and requests reconsideration of the claims.

The Examiner asserts that DeJaco discloses classifying the audio data based on a characteristic of the audio. DeJaco, however, does not disclose classifying the audio data into cases where the audio data includes **monophonic sound and polyphonic sound**. Rather, DeJaco analyzes frequency components of an input signal to determine the presence of speech or music then selects an encoding rate of the input signal accordingly, as noted by the Examiner on page 11 of the last office action. DeJaco analyzes the input signals to determine the encoding rate based on the quality of the sound, i.e. whether it is speech or music. By contrast, the present invention classifies the audio data based on total characteristics of the sound (to determine whether the audio data includes **monophonic or polyphonic sound**) and thereby performs AGC preprocessing of the audio data according to this classification. In claims 2 and 9, currently amended, the encoding rate of the codec is

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determined based on a characteristic of the AGC preprocessed audio data, while DeJaco selects the encoding rate of the Vocoder from the input signal without making any changes to the input signal.

Malvar and/or Davis fail to overcome the deficiencies of the primary reference, DeJaco. The Examiner asserts Malvar discloses performing AGC preprocessing. Malvar, however, does not disclose performing AGC preprocessing of frames of audio data classified as based on a characteristic of audio data. Malvar merely describes automatic gain control as an example of enhancement operators incurring a processing delay that will be added to the codec codec delay, without describing its detailed functions (Malvar, col. 2, lines 41-56).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over DeJaco (U.S. Patent No. 5,742,734, hereinafter “DeJaco”), in view of Malvar (U.S. Patent No. 6,029,126, hereinafter “Malvar”) further in view of Forse (U.S. Patent No. 4,912,766 hereinafter “Forse”). Applicant respectfully traverses this rejection and requests reconsideration of the claims.

Forse fails to overcome the deficiencies of DeJaco in view of Malvar. Furthermore, if an independent claim, such as claim 4, is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is also nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicant respectfully asserts, based on the arguments provided *supra*, that claim 5 is nonobvious.

Applicant respectfully requests that the obviousness rejections of claims 2 to 9 be withdrawn.

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Regarding Doctrine of Equivalents

Applicant hereby declares that any amendments herein that are not specifically made for the purpose of patentability are made for other purposes, such as clarification, and that no such changes shall be construed as limiting the scope of the claims or the application of the Doctrine of Equivalents.

CONCLUSION

Applicant respectfully requests that a timely Notice of allowance be issued in this case. It is requested that a one-month extension of time be granted for the filing of this response, and the appropriate extension filing fee of \$65 be charged to Deposit Account No. 19-0513.

If any fees, including extension of time fees or additional claims fees, are due as a result of this response, please charge Deposit Account No. 19-0513. This authorization is intended to act as a constructive petition for an extension of time, should an extension of time be needed as a result of this response. The examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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